AGRICULTURAL PRODUCTS. In the following table the aggregate of the corn, wheat, oats, potato and hay products of Kansaa, for the years 1800 and 1805, and for each year thereafter, is given. The figures, prior to 1875, are compiled from the reports of the United States department of agriculture; those following, from the reports of the secretary of our own state board of agriculture:

1980 1981 1981 1981 1981 1981 1981 1981	Year.
187 198 188 188 188 188 188 188 188 188 188	Corn, bushels.
100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000 100,000	Wheat,
6,725 200,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000 210,000	Outa, buskels.
241.825 241.825 241.825 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.000 241.00	Potaiors, bishele.
2000 000 000 000 000 000 000 000 000 00	Hay,

In presenting these figures it is worthy of note that while, as already stated, the U. S. census reports for 1880 show that Kansas ranked as the twentieth state in population and the sixth in its corn product, it was also the eleventh wheat producing state of the union, the eleventh in its oats product, sixteenth in barley, tenth in ryc, eighth in hay, and seventeenth in potatoes. Thus the rank of Kansas, in agricultural products, was far ahead of her rank in population.

THE AURA OF KANSAS.

The total area of Kansas, is 52, 288,000 acres.

The total area of Kansas is 52,288,000 acres The total area of Kansas is 52,288,000 acres. In 1865 only 243,712 acres of this vast territory were under cultivation; in 1870 the area aggregated 1,360,000 acres; in 1875, 4,749,900 acres; in 1880, 8,868,884 acres; and in 1885, 14,252,815 acres. In the following table I have compiled figures showing the area under cultivation, and the value of the crops produced in Kansas each year, from 1865 to 1885, inclusive:

Acres in Value of

rear.	crops.	crope.
1865	243,712	\$5,347,87
1866	273,900	6,633,81
1867	397,622	8,129,59
1858	562,120	10,46 .16
1969	855,801	15,807,55
1870	1,360,000	18,870,25
1871	1,322,784	17,335,12
1872	1,735,595	15,498,77
1873	2,530,769	28,311,20
1874	3,179,616	30,842,63
1875	4,749,900	43,970,49
1876	5,035,697	45,581,90
1877	5,595,304	45,597,05
1878	6,538,727	49,914,43
1879	7,769,926	60,129,78
1880	8,868,884	63,111,63
1881	9,802,719	91,910,43
1862	11,043,379	108,177,53
1983	11,364,640	106,707,52
1884	13,011,333	104,297,010
1885	14,252,815	92,392,818

The value of the farm crops of Kansas for the five years ending with 1870 aggregated \$59,28,414; for the next succeeding five years their value was \$135,358,214; for the next five years, \$264,334,824; and for the five years ending with 1885 the farm crops of Kansas aggregated in value \$503,485,316. Thus during the past twenty years the farmers of Kansas the past twenty years the farmers of Kansa-have produced crops whose aggregate value reached the enormous sum of \$983,076,768.

The increuse in the value of farms, of farm implements and of farm products—includmplements and of rain products—includ-ing farm crops, products of live stock and market garden, apiarian and horticultural products—is shown in the following table. It will be seen that these values have gen-arally doubled every five years:

Year.	Value of farms.	Value of farm Implements	Value of farm products.
1660	<b>\$</b> 12,258,239	\$727,091	\$4,878,350
1865	24,796,535	1,200,720	10,653,235
1870 1875	123,852,466	4,053,312 7,935,645	27,630,651 43,970,414
(880	235,178,936		84,521,486
DSS5	468,078,454		143,577,018

The value of the farm products of Kansas from 1876 to 1880, inclusive, aggregated and the state of the state to 1885, inclusive, aggregated the enormous sum of \$738,676,912.

rum of \$738,676,912.

The steady development of the state is further illustrated by the figures showing the increase of taxable acres. In 1860 only 1,-778,400 acres were subject to taxation; in 1865 this area had been enlarged to 3,500,000 acres; in 1870 to \$480,839 acres; in 1870 to 17,672,187 acres; in 1880 to 22,386,435 acres; and in 1885 to 27,710,981 acres.

LIVE STOCK.

and in 1885 to 27,710,981 acres.

LIVE STOCK.

In the number and value of its live stock, Kansas ranked, in 1880, as the eighth state of the Union. In 1860 the live stock of Kansas aggregated in value only a little over \$3,000,000; in 1865 it aggegated over \$7,000,000; in 1875, over \$23,000,000; in 1875, nearly \$29,000,000 in 1880, over \$61,000,000, and in 1885. nearly \$118,000,000. The following table gives the number of horses, mules, cows, cattle sheep and swine, and their aggregate value, for the years 1861 and 1865, and every year thereafter to and including 1885.

52	Year.
<b>2008/80</b>	Haraca.
	Mules.
<b>55</b> 196888888888888888888888888888888888888	Сони.
11111111111111111111111111111111111111	Cattle.
	Sheep.
######################################	Swine.
### #### ### ### ### ### ### ### ### #	Palue of live stock

THE WEALTH OF AN AGRICULTURAL STATE.

Kansas is an agricultural state. It has no gold or silver, no iron, and just coal enough to furnish fuel. It is the farmers' and stockmen's state. Its development simply shows what good old Mother Earth, when in

o Boston by the Atchison, Topeka & Santa

COMPARATIVE VALUES.

In speaking of the value of the farm crops and farm products of Kansas, I can present a clearer idea of the wealth our farmers have dug out of the earth by some comparisons. In 1881 the products of all the gold and silver mines of the United States aggregated only \$77,700,000; for 1883 \$76,200,000; and for 1884 \$79,600,000—making a total, for those four years, of \$312,800,000. The value of the field crops of Kansas for the same years, aggregated \$411,092,498; and the farm products of the state for the same period, aggregated in value \$595,099,894—or very nearly double the aggregate of all the gold and silver products of all the mines of the country.

Country.

The gold and silver products of the world average about \$208,000,000 per annum. The farm products of Kansas for 1885 aggregated \$143,577,018, or nearly three fourths the rorld.

For the past four years the farm products of Kansas have aggregated in value each year more than double the annual yield of all the gold and silver mines of the United States.

The gold and silver products of Colorado. The gold and silver products of Colorado, for 1883, aggregated only \$29,250,000; those of California, \$16,600,000; of Nevada, \$9,100,000; of Montana, \$9,170,000; of Utah, \$6,120,000; of Arizona, \$5,530,000; and of New Mexico, \$3,300,000. The corn crop of Kansas for the same year was alone worth more money than the conbined gold and silver products of Colorado, California and Nevada; the oatcrop of Kansas was worth \$705,000 more than the gold and silver product of Arizona; and the Irish potato crop of Kansas was worth more than the gold and silver product of New Mexico.

PROPERTY VALUATIONS.

PROPERTY VALUATIONS

The property valuations of Kansas have increased in steady proportion with the growth of the state in population and productions. In 1860 the true valuation of all

ductions. In 1860 the true valuation of all the property in the state was estimated at \$31,327,891; in 1865 it was estimated at \$72,252,180; in 1870 it had increased to \$188,892,-014; in 1875 to \$242,555,862; in 1880 to \$221,-783,387; and for 1885 the true valuation, at a very moderate estimate, was \$550,000,000.

The following table presents the assessed valuation of all the property of the state for the years mentioned, and also the assessed valuation of all the real, personal and railroad property. It will be seen that the increase in the total assessed values from 1865 to 1875 was \$85,431,344, while from 1875 to 1885 it was \$127,300,928.

Year.	Total.	Real Estate.	-	Personal.	Railroad.
1880 \$ 12,118,232	£ 12,518,232	\$ 16,088,602		6,429,630	
1803	36,125,090	28,133,276	•	7,992,814	
1870	82,100,820	65,490,365	•	28,601,455	
1875	121,476,332	89,775,784		19,422,637	\$ 12,277,391
1880	160,801,689	108,432,049		31,911,838	20,547,802
00*	248,845,270	161,791,641		50,085,818	10,207,817

and 1870, the railroad property was as-personal, and is included under that

KANSAS MANUFACTURES.

Kansas is not a manufacturing state. Its prosperity is based upon the plow. It has, however, coal deposits equal to the needs of its population, valuable lead mines in the southeast, and salt and gypsum in abundance. But the manufacturing establishments of the state are steadily increasing in importance as well as in number. In its flouring and grist mills Kansas ranked, in 1880, as the thirteenth state of the Union: in meat packing, as the twelfth; and in cheese propacking, as the twelfth; and in cheese pronacking, as the twelfth; and in cheese pro-

ducts as the fourteenth.

In the following table the number of man-facturing establishments, including mines and railroad shops, their capital, products, etc., is given for the years named:

Year.	Establish-	Cupital	Employes	Wages	Palue of Products
1860	314	\$1,084,935	1,735	\$880,346	\$4,357,408
1870	1,476	4,319,060	6,844	2,377,511	11,775,8\$3
1880	2,803	11,191,315	10,062	8,995,010	30,843,777
1880	3,900	19,000,000	16,000	6,300,000	48,000,000

TRANSPORTATION PACILITIES.

The transportation facilities of Kansas are msurpassed. Only seven states of the Julion, New York, Pennsylvania, Ohio, Illi-liois, Indiana, Iowa and Missouri, have withnois, Indiana, Iowa and Missouri, have within their borders more miles of completed
railway that has Kansas. For fully 200
miles west of our eastern border, every
county except one is traversed by from one
to six lines of railway. There are eighty-six
organized and eleven unorganized counties
in the state, and of these all except fourteen
organized and seven unorganized counties
have railways within their limits. In 1864
Kansas had not a mile of completed railroad. In 1870 we had 1,283 miles; in 1875
over 1,887 miles; in 1880 an aggregate of

8,104 miles, and there are now 4,750 miles of eted railway in Kansa

THE SCHOOLS OF HANSAS. Education has gone hand in hand with the aterial growth of Kansas. It has been the

Fear.	Scholars enrolled	School houses	School districts	Teachers	Amount paid to	Falue of school
880 :.	5,915 26,341 68,218 141,606 231,434 325,538	3,715 5,315	1,950 4,560 6,134	5,383 7,780	\$85,898 \$18,596 689,906 1,088,504 1,989,169	1,520,041 3,742,507 4,049,213

agold or silver, no iron, and just coal enough to furnish fuel. It is the farmers' and to furnish fuel. It is the farmers' and stockmen's state. Its development simply shows what good old Mother Earth, when in her happiest vein, can do. "Agriculture," any Colton, "is the most certain source of strength, wealth and independence; commerce, in all emergencies, looks to agriculture both for defense and for supply." The growth and prosperity of Kansas afford a striking illustration of what intelligent farmers, with a productive soil and a genial climate for their workshop, can accomplish—what wealth they can create, what enterprise they can stimulate.

It is difficult, however, to comprehend what the figures I have given, showing the amounts and values of Kansas products, really represent. When we read that Kansas produced, last year, 194,130,000 bushels of corn, the nine figures set down do not convey any adequate idea of the bulk and weight of this crop. But when it is stated that the corn crop of Kansas for 1885 would fill 485,000 freight cars, and load a train wat the figures stand for.

The wheat crop of the state last year, was called a failure. It was, for Kansas. And yet it would fill 31,839 grain cars and load a train rain 189 miles in length. The oats crop of the state, for the same year, would fill 44,355 cars, and load a train 200 miles long; while the hay crop would load 768,834 cars, making a train 4,510 miles long.

These four crops of Kansas, for 1885, would fill 1,323,808 grain cars, and load a train 7,804 miles in length. The oats crop of the state, for the same year, would fill 44,355 cars, and load a train 200 miles long; while the hay crop would load 768,834 cars, making a train 4,510 miles long.

These four crops of Kansas, for 1885, would fill 1,323,808 grain cars, and load a train 7,804 miles in length. The oats crop of the state, for the same year, would fill 48,09,371,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433,501,433, In 1861 the amount expended for the support of common schools was only \$1,70, while the expenditures for the same purpose a during the year 1885, aggregated \$2,077,763. For the five years ending with 1865, the expenditures for public schools aggregated \$202,657.21; for the next succeeding five years they aggregated \$2,259,497.89; for the next five, \$7,509,375.23; and for the five years ending with 1885 the expenditures for public schools aggregated \$12,630,480.64. Thus Kansas as has expended for the support of her common schools, during the past quarter of a century, the enormous sum of \$3,214,202.40.

The table following shows the expenditures each year, from 1861 to 1885, inclusive, and illustrates not only the growth of Kansas, but the general and generous interest of its citizens in public education:

Year. Expenditures.

	The market the Populo Condition.	
	Year.	Expenditures
Ų	1861	.\$ 1,700 0
a	1862	11,894 4
Ü	1863	. 26,887 C
	1864	84,221 30
	1865	137,974 43
	TOTA	
	1866	
	1807	. 364,402 50
	1808	. 431,316 54
	1869	565,311 17
g	1870	673,041 41
	1871	1,074,911 09
	1872	. 1.701.939 44
	1873	1,657,318 27
9	1874	1,639,977 99
	1875	
9	1876	1.165,638 80
9	1877	
ġ	1070	
ij	1878	
1	1879	
	1880	
3	1881	. 1,996,335 61
9	1882	. 2,194,171 65
1	1883	2,579,243 62
ã	1884	2,882,963 53
	1885	2,977,763 22
	Tetal	\$30,211,002 40

CHITECHES AND NEWSPAPERS.

Churches have multiplied and newspaper ncreased as have the schools. In 1860 there were only 97 church buildings in Kansas, and were only 3; church bundings in Ransas, his they had cost only \$143,950. In 1870 the number of churches had increased to 331, valued at \$1,722,700, and in 1880 they num bered 2,514, costing an aggregate of \$2, 491,560. There were only 27 newspapers published

There were only 27 newspapers published in Kansas in 1863, and of these only three were dailies. In 1870 the number had increased to 97, of which 12 were dailies. In 1880 there were 347 newspapers, including 20 dailies. During the year just closed 581 journals, of which 32 were dailies, were published in Kansas. The aggregate circulation of our newspapers, in 1860, was 21,320, while for 1885 their circulation aggregated 335,400. Every organized county has one or more newspapers, and, as a rule, our journals are creditable to their publishers and to the state.

WHAT OF THE FUTURE?

And now, having sketched the growth of Kansas during the past quarter of a century, it is proper to ask, what of the future? I answer, with confidence, that Kansas is yet in the dawn of her development, and that the growth, prosperity and triumphs of the next decade will surpass any we have yet known. Less than one-fifth of the area of the state has been broken by the plow—10. the state has been broken by the plow-10,-000,000 of 52,000,000 acres. Multiply the present development by five, and you can perhaps form some idea of the Kansus of the year 1300. The light of the morning is

still shining upon our prairie slopes. . he year just closed witnessed the first actual permanent settlements in the counties along permanent settlements in the counties along our western frontier—not settlement by wandering stockmen or occasional frontiersmen, but by practical, home-building farmers and business men. The line of organized counties now extends 400 miles, from the Missouri river to the Colorado line. The scientists, I know, are still discussing climatic changes, and questioning whether the western third of Kansas is fit for general farming. But the homesteader in Cheyenne or Hamilton counties entertains no doubt about this question. He has no weather-guage or barometer, but he sees the buffalo grass vanishing and the blue-joint sending its long repts deep into the soil; he sees the trees growing on into the soil; he sees the trees growing on the high divides; he watches the corn he has the high divides; he watches the corn he has planted springing up, and waving its green guidons of prosperity in the wind; he sees the clouds gathering and drifting, and he hears the rain pattering on his roof—and he knows all he cares to know about climatic changes. He is going to stay.

A PROPRECT FULFILLED.

On the 7th of May, 1856, a great American, learned, sagacious, and confident in his faith that right and justice would at last prevail, said, in a speech delivered in the city of New York.

vail, said, in a speech delivered in the city of New York:

"In the year of our Lord 1900, there will be 2,000,000 people in Kansas, with cities like Providence and Worcester—perhaps like Chicago and Cincinnati. She will have more miles of railroad than Maryland, Virginia, and both the Carolinas can now boast. Her land will be worth \$20 an acre, and her total wealth will be five hundred millions of money. Six hundred thousand children

kir land will be worth \$20 an arce, and her total wealth will be five hundred millions of money. Six hundred thousand children will learn in her schools. What schools, newspapers, libraries, meeting-houses! Yes, what families of education, happy and resident outself with prophetic fire. The ideal Kansa of to-day. The marvelous growth, the splendid prosperity, the potent intellectual and moral energies, and the happy and contented life he predicted, are all around us. At the threshold of the year A. D. 1886, fifteen years before the limit of his prophecy, Kansas has cities like Providence and Worcester; has more than double the railway mileage Maryland, Virginia, and both the Carolinas, could then boast; has land worth, not \$20, but \$50 and \$100 dollars an acro; has wealth far exceeding \$200,000,000; has schools, newspapers, libraries and churches rivaling those of New England; and has 1,300,000 happy, prosperson and intelligent people.

The prophecy has been fulfilled, but the end is not yet. The foundations of the state, like those of its capitol, have just been completed. The stately building, crowned with its splendid dome, is yet to be reared. Smiling and opulent fields, busy and prosperous cities and towns, are still attracting the intelligent, the enterprising and the ambitions of every state and country. The limits that bound the progress and do evelopment of Kansas cannot now be gauged or guessed. We have land, homes, work and plenty for millions more; and for any three state will continue to grow. For we are yet at the threshold and in the dawn of it all. We are just beginning to realize what a great people can accomplish, whom "love of country moveth, example teacheth, company comforteth, emulation quickeneth, and glory states."

The prophecy has been fulfilled, but the end is not yet. The foundations of the state, like those of its capitol, have just been completed. The stately building, crowned with the splendid dome, its yet to be reared. Smiling and opplete the state, other the state of the state,

Kansas Manufactures and Mines. MY HON. ALEXANDER CALDWELL.

I appreciate the compliment intended by your committee in assigning to me the subject of "Kansas Manufactures and Mines," but Mr. President, when I see present so many able gentlemen distinguished in the annals of our state, I must express my sincere regret that your committee did not select from this number some one more competent than I to do justice to the subject. My life has been too busy with the pressing and absorbing cares incident to trade and manfactures, to afford the necessary preparation for such an occasion.

However, in deference to the request of your committee I come fresh from the workshop and factory, with the smoke and smut of the forge upon my brow to contribute my mite to the exercises of the evening.

Twenty-five years ago I was somewhat extensively engaged in the business of transporting military stores across the plains in wagons.

Mr. President I am aware that an allusion I appreciate the compliment intended by

wagons.

Mr. President, I am aware that an allusion

Mr. Fresident, I am aware that an allusion to this business is rarely germane to the subject, but a request from members of your committee that I should make some reference to this primitive mode of transportation is my apology for refering to it.

To those who lived here prior to the construction of railroads west of the Missouri, I can not say much that will be say it have. I can not say much that will be new. About twenty-five years ago there were compara-tively few who realized the magnitute of that

the great development in Kansas from 1861 to 1886 will be better appreciated by keeping in mind the fact that one-third of a century ago the most intelligent people of the country had but an imperfect knowledge of this fertile land, and as school children we of this fertile land, and as school children we knew of it only upon the maps as part of the "Great American Desert," the solitude of which was only broken by the war whoop of the Indian and the howling of coyotes. To maintain possession of this territory and all that vast country acquired by the war with Mexico, military posts were established in what is now Kansas, Colorado. New Mexico, Utah and California.

what is now hansas, Colorado, New Merico,
Utah and California.

The troops stationed at these points and
thousands of civilians who had gone west
in search of fortune were dependent for
support upon supplies east of the Missouri,
the only means of getting which were by
wagon transportation.

Prior to the war of the great rebellion the
starting and outfitting places were Kanasa

Frior to the war of the great rebellion the starting and outfitting places were Kansas City, Independence and St. Joseph, Missouri, but during and after the war, Leavenworth, Atchison and Nebraska City and Omaha were the principal points of departure. Leavenworth, however, was the point at which the great bulk of the stores were concentrated.

It is desirable that some record should be left of what at one time was the principal if

It is desirable that some record should be left of what at one time was the principal if not the only occupation on the plains.

The magnitude of that business will be better appreciated by referring to what was done in this line. One company had its headquarters at Leavenworth. The amount of supplies required annually for the military alone amounted to from thirty-five to afty million of pounds. I know that except to those who are engaged in the business of transportation by rail, the task of handling afty million pounds will not be readily understood. Our expert and intelligent railroad men, accustomed as they are to the business of the day, will scarcely realize what is was twenty-five years ago to perform this service. It would have been a commerce of no mean porportion for the great Santa Fe or the Union Pacific railroads to carry.

A train of twenty-five wagons, starting

A train of twenty-five wagons, starting from the Missouri river on the lst of May, would not reach Salt Lake City until about the lst of October, or in four or five months. Now a train of twenty five and the contract of th

Now a train of twenty-five or more cars will make the journey in four of five days. Then a passenger traveling by stage night and day, if unmolested by Indians, or not delayed by storms, could reach Salt Lake in twelve or fifteen days, now he can ride there comfortably in the palace car in less han three.
Such, Mr. President, has been the pro

than three.
Such, Mr. President, has been the progress of the times.
Now let us see what kind of an undertaking it was to transport 50,000,000 of pounds by wagon, slually trains were composed of twenty-six teams, each wagon loaded with about 6,000 pounds, and drawn by six yoke of cattle or four to six mules. Oxen were generally used because the first cost was less than that of mules, and they could subsist on the grass alone, while mules or horses required grain to keep them in serviceable condition. Another advantage in the use of cattle was, that when they became footsore or disabled, they could be left at stations to recruit for use in succeeding trains, or killed for beef, as the occasion might require. for beef, as the occasion might require.

With each train of twenty-six wagons there were 300 head of cattle,
twenty-five drivers, a captain, or as
we then called him, a wagon master,
an assistant, and three extra nen; in all thirty men.

men; in all thirty men.

In times of imminent danger four or more
of these trains were massed together, and in
cases of attack the wagons were drawn into
a circle, forming a corral, if possible, near a The animals were driver inside the corral so formed, and the used for barricades. To transport 50,000,000 pounds in this

To transport 50,000,000 pounds in this manner required 10,000 wagons, 12,000 men, and 120,000 head of stock. These trains of "prairie schooners," as they were then called, traveled weatward along the Arkansas to Colorado and New Mexico, and in the valley of the Platte to Wyoming, and beyord to Utah and the shores of the Pacific. Had they been formed into one continuous line, in the ordinary way of traveling, we should have had a column more than 1,000 miles long.

This was an expensive mode of transporta-

had a column more than 1,000 miles long.

This was an expensive mode of transportation. The investment in a single train of
twenty-six wagons was about \$35,000, and
the means of transportation necessary to
carry 50,000,000 of pounds would cost more
than \$5,000,000. The cost of subsisting and than \$5,000,000. The cost of subsisting and moving these caravams was enormous, and therefore large rates of transportation were paid. It may be surprising to the railroad men of the present to know that as late as 1885 the government paid \$2.25 per 100 pounds per 100 miles. The distance to Leavenworth from Salt Lake City being 1,200 miles, made the cost per 100 pounds \$27 or \$540 per ton. At this rate a train of twenty-five wagons would earn \$45,500. To-day the same amount of freight is taken by rail at a cost of \$1,500. Nothing better than such a comparison demonstrates what the railroads have accomplished towards annihilating distance, and bringing the remote parts of this great country in closer relation.

Their plan was to run it into Texas, dispose of it for eash and join the confederacy. All except Atkins, his assistant and one other were engaged in the conspiracy. It was agreed that if Atkins opposed the plan he should be killed

should be killed.

One night, in the Raton mountains, soon after getting into camp, and when within a few miles of a military post, the plan was submitted. Atkins suggested that after supper they would gather around the camp fire and talk it over. He so managed as to get them seated, some dissauce from the fire and telk it over. He so managed as to get them seated, some dissauce from the the wagon and their weapons, and listened to their proposals. Suddenly springing to his feet, he and his assistants covered the party with their revolvers while the extra man was dispatched to the fort for assistance. "And they crouched before him, for he had skill To warp and wield their vulgar will."

The mutineers were taken to the fort as prisoners, while soldiers were sent to take the train through to its destination. Thus did the courage and decision of Tom Atkins save to our company, and to the United States, thousands of dollars of valuable property.

States, thousands of domins of property.

Card playing was one of the amusements of the plains, as it appears to be here. I received a letter from a ranchman, demanding \$100 for a horse furhished Atkins. I referred the claim to him and he returned it with the endorsement that he did not owe that man "a cent."

He insisted that he had gotten the horse on the square; that he had enjoyed the game and with the poet might well exclaim:

"Oh the dear pleasures of the velvet plain,"

"Oh the dear pleasures of the velvet plain, The painted tablets dealt and dealt again."

On the dear pleasures of the velvet plans.
The painted tablets dealt and dealt signin."
Subsequently while engaged in my office in settling the business of his six month's trip, I was startled to find him quietly slipping his pistol from its holster, and then, without a word, and as quick as a flash, wheel around, covering with his weapon a man who had just entered the door. The stranger replied, "All right, you have the drop on me now, but the next time we meet we shoot on sight, and don't you forget it."
This man was one of the mutineers whom Tom had put in irons, and who had sworn to shoot him. He had followed him to my office for that purpose, but was not quick enough for the occasion. Atkins subsequently killed his man, and he in turn was assassinated and died with his boots on in a Kansas town.

sas town.

Twenty-five years ago the professional "bullwhacker" was a hard citizen. Profanity was a part of his nature—the cattle even appearing to do their level best pulling, in proportion to the energy and fluency with which the driver delivered himself of his most familiar expressions. nost familiar expressions.

I have have known of priseworthy efforts

I have have known of priseworthy efforts at reform.

One distinguished freighter, whose name twenty-five years ago was known west of the Missouri, perhaps better than any other, went so far as to furnish his "whackers" with bibles, but the effort was a religious and financial failure. The men declared no mortal man could drive six yoke of cattle from the Missouri river to the Rocky mountains without an occasional swear. The bibles were traded off to the Indians, and within twelve months the firm went into bank-ruptcy.

ruptcy.

Mr. President, of course you will not un-derstand me as intimating that financial dis-aster overtook this firm because of its comaster overtook this firm because of its commendable effort to improve the vernacular of the plains, nor do I admit that it is impossible to make cattle pull without the usual amount of profanity. But in those days there were times when it did appear difficult to dispense with the familiar code in wet seasons. For example, trains would become mud bound, and it was not infrequent to see a wagon in the mud up to the axle, and the cattle in the mire almost to their backs.

Now, this is a bad situation, and it did require real lively talk to get the load to move. I was passing by a train upon such an occasion, in company with the late Thomas H. Scott, the railroad magnate, who had a mon-

Scott, the railroad magnate, who had a mon

Scott, the railroad magnate, who had a money interest in our enterprise.

We passed by one wagon which had sunk down to the axle. Scott, addressing the driver, said: "Well, my man, you are in a bad fix." "Oh, no," he replied, "I am all right, but there are two wagons below mine and those fellows down there are having a h—l of a time!"

But much progress has been made, since But much progress has been made sine

those days of prairie schooners; then there was not a mile of railroad in the state, now there are more than 3,000 miles in operation and as many more projected.

Then not a school house or a church in the

territory, now we have more of both in pro-portion to our population than any other state in the Union.

Thirty-tive years ago the territory was unknown to the world of agriculture.

past two years we have produced nearly \$00,000,000 bushels of corn, 100,000,000 bushels of wheat, and all other products of the field in proportion.

In 1261 we had a population of 107,000, now we have not far from 1,250,000, and yet this is only our quarter centennial. But, Mr. President, it is not alone in agriculture that Kansas has made such rapid develop-ment, and now if it is not too late, and if I

have not already taxed your indulgence too much, I shall proceed briefly with the subject assigned me.
Thirty-five years ago there was not a factory in the territory, not a single smoke stack to obscure the etherial atmosphere. Human hands had not wrought in the virgin soil, and the curious and frisky prairie dog was undisturbed in his system of mining and sub-errancous exploration.

Now our young state is known from the frozen lakes of the north to the warm waters of the gulf, and even to the golden sands of the Pacific, for the numbers and excellence

the Facinc, for the numbers and excellence of her manufactures.

In Atchison, Leavenworth, Topeka, Wyan-dotte, Lawrence, Ft. Scott, Emporia, Wich-ita, and indeed in all parts of the state the never ceasing hum of machinery may be heard. In the brief time allotted it will be

heard. In the brief time allotted it will be impossible to refer in detail to the manufacturing enterprises of various cities and towns, but I may speak of one of them as an illustration of what is being accomplished.

Leavenworth is the chief manufacturing center of the state. To dwell upon the subject without making that town a prominent factor in it, would be like attempting the play of Hamlet with that important character left out. I trust, therefore, that I am warranted in selecting that city, my home. ter left out. I trust, therefore, that I am warranted in selecting that city, my home, as an example for the progress and rise of manufacturing and mining in Kansas. Up to the year of the war 1851, and during its continuance slow progress was made, but since 1855 the development has been rapid.

Mr. President, you are familiar with the business of Leavenworth, but even you may not know the last year the aggregate of manufactures was about \$20,000,000. Prominent among these industries are stove works, pro-

among these industries are stove works, pro-ducing about 60,000 stoves per annum, about 200 per day, or a complete stove in about every four minutes of working time. A single wagon factory with a capacity of 10,000 per year, or thirty-three per day, or a complete farm wagon of the best material, substantially and beautifully finished, turned out every twenty minutes; flour mills with a capacity of 2,500 barrels per day, or 100 barrels every hour of running time; a discovery rels every hour of running time; a glucose factory which consumes daily ten car loads of coal for fuel and converts 5,000 bushels of

orn into syrup.

An extensive factory for the manufacture of iron bridges.

Factories for the manufacture of furni-ture, steam engines and hundreds of others, which time will not permit me to mention.

what I have said of the progress at Leav-

were so strangely clad.

But among them were many brave and faithful men. One instance will be sufficient to show the character of the men generally selected as captains or wagon masters. One of the first trains organized by myself in 1851 started from Leavenworth, destined for Fort Union, New Mexico, under the charge of Tom Atkins, a character subsequently well known in the frontier towns of the west. The employes of this train were citizens of the western border of Missouri, and as soon as they learned of the fall of Sunter were restless to return and join the rebel army.

During the journey they conceived the idea of stealing the entire train and its cargo.

000, and besides these there are we mills, broom factories, lead and zino we canning factories, linsed oil works, par bouses, paper mills, sorghum factories ant medicines, and other enterprises to merous to mention experience. merous to mention, aggregating more than \$40,000,000 of manufactured articles each

year.
This, together with the value of field crops This, together with the value of field crops of more than one hundred millions, and live stock to the value of forty millions, makes a good showing for our young commonwealth. Mr. President, chance does does not govern the world; there is a cause for all of it. The fertile soil and excellent climate is the cause of the phenomenal development of our agricultural resources, and the real source and great factor in the wonderful growth of our manufactures; sour coal.

and great factor in the wonderful growth of our manufactures is our coal.

It is important then once more to inflict upon you some facts and figures as to the permanency of our supply. At Leavenworth we have a coal mine with ponderous engines and in its equipment is unsurpassed by any in the country. Here several hundred men are constantly employed and from a depth of more than seven hundred feet the shining mineral is brought to the surface at the rate of five hundred tons per day or one ton per minute at hoisting time.

At the penitentiary, four miles south and three miles west of Leavenworth, is another mine of equal depth and striking the same vein, from which the output is now about 250 tons per day, and which is being rapidly developed to much greater capacity.

From these mines coal is shipped to all

tons per day, and which is being rapidly developed to much greater capacity.

From these mines coal is shipped to all parts of the state. The quality is the best bituminous, and has contributed largely to the encouragement of manufacturing.

In regard to the permanency of the supply, Judge L. Hawn, who has given the subject much study, in a report made to the Leavenworth board of trade, says:

"Is this supply of coal permanent? If not, our prestige as a manufacturing center will depart. A few facts will show. The shaft of the Leavenworth Coal company is situated on the Fort Leavenworth reservation, on the northern edge of the city, and on the bank of the Missouri river. The penitentiary shaft, some four miles south of the southern city limits, and about three miles west of the other shaft, making the distance between them about seven miles. The rock and formations ct in sinking these shafts are the same, and here is no perceptible difference in the thickness or quality of the coal either; so that both the shafts are working in the same coal basin. There being no diminution in the thickness of this coal bed in the distance of seven miles south and three miles west, it is safe to say and certain

in the distance of seven miles south and three miles west, it is safe to say and certain that our coal basin is at least twelve miles square, and covers an area of at least 144 Now, Mr. President, let us see what supply we have in this twelve miles square. Prac-tical tests in both mines demonstrate that in this vein of two feet in thickness 70,000 bush-

this vein of two feet in thickness 70,000 bushels are of tained per acre, equal to 44,-803,000 bushels or about 1,800,000 tons per square mile, or for the 144 square miles 259,000,000 tons. One thousand good miners will take out about 40,000 bushels or 1,500 tons per day. At this rate it will require the labor of 1,000 men for 576 years, or 5,000 men 115 years to wash out this area of twelve miles square.

It will be seen, therefore, that the supply of coal in Leavenworth county is practically nexhaustible, even were 100 more shafts to But the coal deposit of Kansas is not lim-

But the coal deposit of Kansas is not limited by counties.

The eastern part of the state from Marshall, Brown and Doniphan counties on the north to Osage, Cherokee, Crawford and Bourbon on the southeast is to a great extent underlaid with coal.

Mining, perhaps, is prosecuted more vigorously in the four last named counties. There extensive mines have been opened, from which immense quantities of the best quality of biturvinous coal are shipped daily.

trom which immense quantities of the best quality of bituroinous coal are shipped daily.

Now, Mr. President, while it is generally known that we have coal in Kansas, I do not believe that the quantity and value of this mineral deposit is generally understood and appreciated by our own people. I confess until I had made some calculation upon the subject, I did not fully realize myself the perpetual source of wealth we have in our coal mines. In Cherokee, Crawford, Bourbon and Osage counties it is safe to assume there is a coal belt covering an area of seventy by twenty miles, or 1,400 square miles. A vein averaging two feet in thickness will give us 1,800,000 tons to a square mile, equal to twenty-five hundred and twenty millions of tons. One ton of coal is equal to about one cord of wood, so that the coal in this area of 1,400 square miles is equal to five thousand million cords of wood. Kansas comprises about 50,000,000 of acres. If oneomurises about 50,000,000 of acres. If onecomprises about 50,000,000 of acres. If one-half of it was covered with a forest we might say that there was a good supply of timber in sight. Yet if one-half of the entire state was covered with a forrest of two hundred cords to the acre we would have five thous-and millions of cords, a sup-ply of fuel not exceeding that con-tained in the coal beds of four counties; so that formers or the manufacturers on here. that farmers or the manufacturers now here.

or those who may come for generations hereafter, may rest assured that in Kansas the supply of coal will not fail them. But it is not in coal alone that the mineral wealth of Kansas consists. Her lead and zinc mines are practically as inexhaustible as her coal, and of a richness and quality that have already established them in the markets of the world.

In various parts of the state, salt works In various parts of the state, san works are in operation and large quantities of salt are procured from wells, the brine of which is of more than ordinary richness.

Chalk and gypsum abound in paying quantities, and the deposits of limestone and sandstone are so immense that all the houses and fences of Kansas might be built of stone without exhausting the supply.

and tences of Rainsas might be built of stone without exhausting the supply.

Mr. President, with such a wealth of mineral, and from the geographical position of our state, as the center of the Union, I can see no reason why, within the next twenty-five years, we shall not be among the chief manufacturing states of the nation.

To the press of Kansas more than to any other agency, we are indebted for the knowledge the world has obtained of our agricultural resources. We trust now that those brainy, enterprising editors will devote as much energy and ability to set forth the advantages that exist here for manufactures.

Let it be known that immense quantities of farm implements are distributed from points on the Missouri river; that more than two-thirds of them are used upon farms west of Missouri, and that we have all the advantages for manufacturing these articles in Kansas. Why then should we continue to pay tribute to the east?

Let us manufacture these articles ourselves and build no within the borders of our own

Kansas. Why then should we continue to pay tribute to the east?

Let us manufacture these articles ourselves and build up within the borders of our own state, the Pittsburg of America, and thus will we bring the consumer close to the door of the producer, affording to the Kansas farmer the option of a home in a foreign market for the products of his farm.

In connection with this subject, we must not loose sight of the fact that natural gas, because of its convenience and cheapness, has become a great factor in manufacturing in Pittsburg and other cities of the east. Already about one-third of all the establishments in Pittsburg and development continues, it will be but a short time until all the machinery of that busy city will be kept in motion by gas.

Manufacturers from other parts of the country, attracted by it, are locating there, and that city will not only be the great manufacturing center of the east, but through the agency of gas is rapidly rising, transformed from the blackest to the cleanest and brightest in the country.

Kansas should ever be in the van of progress, and action should be taken at once to ascertain what there is for us 4,600 or 5,000 feet below.

ascertain what there is for us 4,000 or 5,000

ascertain what there is for us 4,000 or 5,000 feet below.

A few thousand dollars judiciously expended in the line of geological survey might result in adding untold millions to the wealth of the state.

Let our legislators consider this matter.

Mr. President, every Kansan should feel proud of the progress already made in manufacture.

Even now as he journeys westward or east-

Even now as he journeys westward or east-